



180

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of

Applicant(s) : Mitchell, et al.  
Serial No. : 10/705,572  
Filed : November 11, 2003  
Title : WATER FILTER MATERIAL, WATER FILTERS AND KITS CONTAINING  
SILVER COATED PARTICLES AND PROCESSES FOR USING THE SAME  
Docket : 8681 RCR  
Art Unit : 1723  
Confirm. No. : 4234

MAIL STOP AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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1450, Alexandria, VA 22313-1450, on April 5, 2006.

Paul M. Ulrich

Reg. No. 46,404

Sir:

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §§ 1.56, 1.97, AND 1.98

Applicants submit herewith patents, publications, and other information of which they are aware, which they believe may be material, as defined in 37 CFR §1.56(b), to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56(a). While the information referred to in this Information Disclosure Statement may be material pursuant to 37 CFR §1.56(b), the filing of this Information Disclosure Statement is not intended to, pursuant to 37 CFR §1.97(h), constitute an admission that any patent, publication, or other information referred to is, or is considered to be, material to the patentability of this invention. No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103, and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish otherwise. Further, pursuant to 37 CFR §1.97(g), the filing of this Statement should not be construed as a statement that a search has been made or that no other material information exists.

Serial No. 10/705,572  
Docket 8681 RCR


This Information Disclosure Statement is filed after the period set forth in §1.97(b), but before the mailing date of a final action under §1.113 or a notice of allowance, whichever occurs first.

This Information Disclosure Statement is accompanied by a check in the amount of \$180.00 in payment of the required fee set forth in 37 CFR §1.17(p).

The above application is a continuation-in-part of U.S. Application Serial Nos. 10/464,209 and 10/464,210 both filed on June 18, 2003. Pursuant to §1.98(d), copies of those items cited by or submitted to the Office in the prior applications are not being submitted.

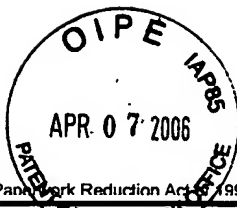
The Office has waived the requirement pursuant to 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC § 371 after June 30, 2003. Therefore, no copies of each cited U.S. patent and each cited U.S. patent application publication are enclosed, but the cited U.S. patents and the cited U.S. patent application publications are listed on PTO/SB/08A and PTO/SB/08B.

Respectfully submitted,  
DINSMORE & SHOHL LLP

By   
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PMU/ds/AMM  
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PTO/SB/17 (12-04)

Approved for use through 07/31/2006. OMB 0651-0032

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Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).  
en 12/08/2004.**FEE TRANSMITTAL**  
**For FY 2005**☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180

**Complete if Known**

Application Number	10/705,572
Filing Date	November 11, 2003
First-Named inventor	Mitchell, et al.
Examiner Name	Yoon Young Kim
Art Unit	1723
Attorney Docket No.	8681 RCR/9116.813

**METHOD OF PAYMENT (check all that apply)**☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_☐ Deposit Account Deposit Account Number: \_\_\_\_\_ Deposit Account Name: \_\_\_\_\_

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**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	0
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

<b>Total Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>	<b>Multiple Dependent Claims</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>
- 20 or HP = _____	x _____	=	0			
HP = highest number of total claims paid for, if greater than 20						
<b>Indep. Claims</b>	<b>Extra Claims</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>			
- 3 or HP = _____	x _____	=	0			
HP = highest number of independent claims paid for, if greater than 3						

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

<b>Total Sheets</b>	<b>Extra Sheets</b>	<b>Number of each additional 50 or fraction thereof</b>	<b>Fee (\$)</b>	<b>Fee Paid (\$)</b>
- 100 = _____	/ 50 = _____	(round up to a whole number) x _____	=	0

**4. OTHER FEE(S)**

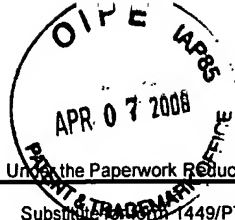
Non-English Specification, \$130 fee (no small entity discount)	<b>Fees Paid (\$)</b>
Other: Information Disclosure Statement	0
	180

**SUBMITTED BY**

Signature	Registration No. 46,404 (Attorney/Agent)	Telephone (937) 449-6400
Name (Print/Type) Paul M. Ulrich		Date April 5, 2006

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 3

## **Complete if Known**

Application Number	10/705,572
Filing Date	November 11, 2003
First Named Inventor	Mitchell, et al.
Art Unit	1723
Examiner Name	Yoon-Young Kim
Attorney Docket Number	8681 RCR/9116.813

## **U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US-5,521,008	05/28/1996	Lieberman et al.	
		US-6,827,854	12/07/2004	Mitchell et al.	
		US-6,241,893	06/05/2001	Levy	
		US-5,772,896	06/30/1998	Denkewicz et al.	
		US-4,396,512	08/02/1983	Beauman et al.	
		US-6,630,016	10/07/2003	Koslow, Evan E.	
		US-5,376,279	12/27/1994	Judd et al.	
		US-4,654,075	03/31/1987	Cipollini, Ned E.	
		US-5,527,451	06/18/1996	Hembree et al.	
		US-5,536,394	07/16/1996	Lund et al.	
		US-5,709,794	01/20/1998	Emmons et al.	
		US-5,882,507	03/16/1999	Tanner et al.	
		US-6,103,114	08/15/2000	Tanner et al.	
		US-4,969,996	11/13/1990	Hankammer	
		US-5,431,813	07/11/1995	Daniels	
		US-6,214,224	04/10/2001	Farley	
		US-5,957,034	09/28/1999	Sham et al.	
		US-6,145,670	11/14/2000	Risser	
		US-6,120,685	09/19/2000	Carlson et al.	
		US-6,241,899	06/05/2001	Ramos	
		US-5,834,114	11/10/1998	Economy et al.	
		US-5,776,385	07/07/1998	Gadkaree et al.	
		US-5,487,917	01/30/1996	Gadkaree	
		US-5,702,498	12/30/1997	Huang	
		US-4,448,695	05/15/1984	Gordon, Jr. et al.	
		US-5,773,143	06/30/1998	Vermillion et al.	
		US-4,283,283	08/11/1981	Zimmerman	
		US-4,552,863	11/12/1985	Fujimori	
		US-3,950,267	04/13/1976	Arakawa et al.	
		US-6,057,262	05/02/2000	Derbyshire et al.	
		US-5,204,310	04/20/1993	Tolles et al.	
		US-5,670,124	09/23/1997	Itoga et al.	
		US-4,081,370	03/28/1978	Schmitt, Jr. et al.	
		US-5,466,378	11/14/1995	Dussert et al.	
		US-4,822,765	04/18/1989	Nishimura	
		US-4,670,482	06/02/1987	Dilling	
		US-6,565,749	05/20/2003	Hou et al.	
		US-2002/0148785	10/17/2002	Mitchell et al.	
		US-2002/0150686	10/17/2002	Mitchell et al.	
		US-2002/0074294	06/20/2002	Tremblay et al.	
		US-4,978,650	12/18/1990	Coughlin et al.	

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/705,572
Filing Date	November 11, 2003
First Named Inventor	Mitchell, et al.
Art Unit	1723
Examiner Name	Yoon-Young Kim
Attorney Docket Number	8681 RCR/9116.813

Sheet 2 of 3**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US-6,660,168	12/09/2003	Tremblay et al.	
		US-6,565,749	05/20/2003	Hou et al.	
		US-2003/0038084	02/27/2003	Mitchell et al.	
		US-2003/0096703	04/22/2003	Mitchell et al.	
		US-2003/0106851	06/12/2003	Tremblay et al.	
		US-2003/0136728	07/24/2003	Jagtoyen et al.	
		US-2004/0040906	03/04/2004	Jagtoyen et al.	
		US-2002/0172637	11/21/2002	Chesneau et al.	
		US-S/N 09/574,456	05/19/2000	Tremblay et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		RU 2 064 429	07/27/1996	Vasil'evich et al		
		RU 2 034 789	05/10/1995	Aleksandrovich		
		RU 2 070 438	12/20/1996	Pimenov et al		
		EP 1 419 109	12/21/2005	Mitchell et al		
		WO 94/10091	03/11/1994	Bio Sci Prod Ent.		
		WO 99/10076	03/04/1999	Hughes		
		WO 02/098536	12/12/2002	Mitchell et al.		
		WO 02/083266	10/24/2002	Mitchell et al.		
		EP 367389	05/09/1990	Dilling et al.		
		FR 2331 515	06/10/1977	Seiler et al.		
		FR 2743 285	07/11/1997	Moulinex		
		GB 1,163,426	09/04/1969	Kata Mfg. and Filtering		
		JP 2000281445	10/10/2000	Tokio et al.		
		JP 05049921	03/02/1993	Tokai Carbon KK		
		SU 1717538	03/07/1992	Pokonova et al.		
		DE 93 12 279	10/14/1993	ETC Engineering		
		WO 02/100509	12/19/2002	Cannon et al.		
		WO 02/068324	09/06/2002	Cannon et al.		
		WO 03/068686	08/21/2003	Mitchell et al.		
		EP 0 490 317	06/17/1992	Abe et al.		

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/705,572
				Filing Date	November 11, 2003
				First Named inventor	Mitchell et al.
				Art Unit	1723
				Examiner Name	Yoon Young Kim
Sheet	3	of	3	Attorney Docket Number	8681 RCR/9116.813

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		DIMITRIS IOANNIS COLLIAS, Declaration under 37 CFR §1.132, 04/01/2004.	
		NEWCOMBE, G., ET AL., "Granular activated Carbon: importance of surface properties in the adsorption of naturally occurring organics", <u>Colloids and Surfaces A: Physicochemical and Engineering Aspects</u> , 1993, 65-71, Vol. 78.	
		GREGG, S.J., ET AL., "Mesoporous solids: the Type IV isotherm", <u>Adsorption, Surface Area and Porosity</u> , 1982, 137-143, 2nd Edition, Academic Press, Inc.	
		REPORT OF TASK FORCE, "Guide Standard and Protocol for Testing Microbiological Water Purifiers", <u>United States Environmental Protection Agency</u> , (submitted April, 1986), revised April, 1987, 1-39.	
		WESTVACO PRODUCTS ON-LINE, "Wood-based Activated Carbons", (2 pgs), downloaded 7/01.	
		ABOTSI, GODRIED, "Interfacial Properties of Coal: A Guide to Catalyst Loading and Dispersion for Coal Conversion", <u>Energia</u> , Vol. 7, No. 5, 3-5, (1996)	
		MORENO-CASTILLA, C., ET AL., "The Creation of Acid Carbon Surfaces by Treatment with (NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>8</sub> ", <u>Carbon</u> , Vol. 35, No. 10-11, 1619-1626 (1997).	
		FRANZ, M., ET AL., "Effect of Chemical Surface Heterogeneity on the Adsorption Mechanism of Dissolved Aromatics on Activated Carbon", <u>Carbon</u> , Vol. 28, No. 13, 1807-1819, (2000).	
		BABIC, B.M., ET AL., "Point of Zero Charge and Intrinsic Equilibrium Constants of Activated Carbon Cloth", <u>Carbon</u> , Vol. 37, No. 3, 477-481, (February 22, 1999).	
		MENENDEZ, J.A., ET AL., "On the Difference Between the Isoelectric Point and the Point of Zero Charge of Carbons", <u>Carbon</u> , Vol. 33, No. 11, 1655-1657, (1995).	

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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